

## SEQUENCE LISTING

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<120> ANTI-CD74 IMMUNOCONJUGATES AND METHODS

<130> 40923-0079US5

<140> 10/706,852  
<141> 2003-11-12

<150> 10/314,330  
<151> 2002-12-09

<150> 09/965,796  
<151> 2001-10-01

<150> 09/307,816  
<151> 1999-05-10

<150> 10/350,096  
<151> 2003-01-24

<150> 09/590,284  
<151> 2000-06-09

<150> 10/377,122  
<151> 2003-03-03

<150> 60/360,259  
<151> 2002-03-01

<150> 60/478,830  
<151> 2003-06-17

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<170> PatentIn Ver. 3.2

<210> 1  
<211> 360  
<212> DNA  
<213> Mus musculus

<220>  
<221> CDS  
<222> (1)..(360)

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Gln Ile Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu  
1 5 10 15

aca gtc aag gtc acc tgc aag act tct gga tat acc ttc aca aac tat	96
Thr Val Lys Val Thr Cys Lys Thr Ser Gly Tyr Thr Phe Thr Asn Tyr	
20 25 30	
gga gtg aac tgg ata aag cag act cca gga gag ggt tta cag tgg atg	144
Gly Val Asn Trp Ile Lys Gln Thr Pro Gly Glu Leu Gln Trp Met	
35 40 45	
ggc tgg ata aac ccc aac act gga gag cca aca ttt gat gat gac ttc	192
Gly Trp Ile Asn Pro Asn Thr Gly Glu Pro Thr Phe Asp Asp Asp Phe	
50 55 60	
aag gga cga ttt gcc ttc tct ttg gaa tcc tct gcc agc act gcc ttt	240
Lys Gly Arg Phe Ala Phe Ser Leu Glu Ser Ser Ala Ser Thr Ala Phe	
65 70 75 80	
ttg cag atc agc aac ctc aaa aat gag gac atg ggt aca tat ttc tgt	288
Leu Gln Ile Ser Asn Leu Lys Asn Glu Asp Met Gly Thr Tyr Phe Cys	
85 90 95	
tca aga tcg agg ggt aaa aac gaa gcc tgg ttt gct tat tgg ggc caa	336
Ser Arg Ser Arg Gly Lys Asn Glu Ala Trp Phe Ala Tyr Trp Gly Gln	
100 105 110	
ggg act ctg gtc act gtc tct gaa	360
Gly Thr Leu Val Thr Val Ser Glu	
115 120	
<210> 2	
<211> 120	
<212> PRT	
<213> Mus musculus	
<400> 2	
Gln Ile Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu	
1 5 10 15	
Thr Val Lys Val Thr Cys Lys Thr Ser Gly Tyr Thr Phe Thr Asn Tyr	
20 25 30	
Gly Val Asn Trp Ile Lys Gln Thr Pro Gly Glu Gly Leu Gln Trp Met	
35 40 45	
Gly Trp Ile Asn Pro Asn Thr Gly Glu Pro Thr Phe Asp Asp Asp Phe	
50 55 60	
Lys Gly Arg Phe Ala Phe Ser Leu Glu Ser Ser Ala Ser Thr Ala Phe	
65 70 75 80	
Leu Gln Ile Ser Asn Leu Lys Asn Glu Asp Met Gly Thr Tyr Phe Cys	
85 90 95	
Ser Arg Ser Arg Gly Lys Asn Glu Ala Trp Phe Ala Tyr Trp Gly Gln	
100 105 110	

Gly Thr Leu Val Thr Val Ser Glu  
115 120

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<210> 3
<211> 337
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (1)..(333)

<400> 3
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Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1           5           10          15

gat caa gcc tcc atc tct tgc aga tct agt cag agc ctt gta cac aga      96
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Arg
20          25          30

aat gga aac acc tat tta cat tgg tac ctg cag aag cca ggc cag tct      144
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35          40          45

cca aag ctc ctg atc tac aca gtt tcc aac cga ttt tct ggg gtc cca      192
Pro Lys Leu Leu Ile Tyr Thr Val Ser Asn Arg Phe Ser Gly Val Pro
50          55          60

gac agg ttc agt ggc agt gga tca ggg aca gat ttc aca ctc aag atc      240
Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65          70          75          80

agt aga gtg gag gct gag gat ctg gga ctt tat ttc tgc tct caa agt      288
Ser Arg Val Glu Ala Glu Asp Leu Gly Leu Tyr Phe Cys Ser Gln Ser
85          90          95

tca cat gtt cct ccc acg ttc ggt gct ggg acc aag ctg gag atc taac      337
Ser His Val Pro Pro Thr Phe Gly Ala Gly Thr Lys Leu Glu Ile
100         105         110

<210> 4
<211> 111
<212> PRT
<213> Mus musculus

<400> 4
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly      48
1           5           10          15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Arg
20          25          30

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<210> 5
<211> 360
<212> DNA
<213> Artificial Sequence
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<220>  
<223> Description of Artificial Sequence: chimeric cLL1VH sequence

<220>  
<221> CDS  
<222> (1) .. (360)

<400> 5  
cag gtc caa ctg cag cag tct gga cct gag ctg aag aag cct gga gag 48  
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu  
1 5 10 15

aca gtc aag gtc acc tgc aag act tct gga tat acc ttc aca aac tat 96  
 Thr Val Lys Val Thr Cys Lys Thr Ser Gly Tyr Thr Phe Thr Asn Tyr  
           20                  25                  30

gga gtg aac tgg ata aag cag act cca gga gag ggt tta cag tgg atg 144  
Gly Val Asn Trp Ile Lys Gln Thr Pro Gly Glu Gly Leu Gln Trp Met  
35 40 45

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ggc tgg ata aac ccc aac act gga gag cca aca ttt gat gat gac ttc 192
Gly Trp Ile Asn Pro Asn Thr Gly Glu Pro Thr Phe Asp Asp Asp Phe
      50           55           60

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aag gga cga ttt gcc ttc tct ttg gaa tcc tct gcc agc act gcc ttt 240
Lys Gly Arg Phe Ala Phe Ser Leu Glu Ser Ser Ala Ser Thr Ala Phe
   65           70           75           80

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ttg cag atc agc aac ctc aaa aat gag gac atg ggt aca tat ttc tgt 288  
 Leu Gln Ile Ser Asn Leu Lys Asn Glu Asp Met Gly Thr Tyr Phe Cys  
                   85                  90                  95

tca aga tcg agg ggt aaa aac gaa gcc tgg ttt gct tat tgg ggc caa	336
Ser Arg Ser Arg Gly Lys Asn Glu Ala Trp Phe Ala Tyr Trp Gly Gln	
100 105 110	

<210> 6  
<211> 120  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: chimeric cLL1VH sequence

<400> 6  
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu  
1 5 10 15

Thr Val Lys Val Thr Cys Lys Thr Ser Gly Tyr Thr Phe Thr Asn Tyr  
20 25 30

Gly Val Asn Trp Ile Lys Gln Thr Pro Gly Glu Gly Leu Gln Trp Met  
35 40 45

Gly Trp Ile Asn Pro Asn Thr Gly Glu Pro Thr Phe Asp Asp Asp Phe  
50 55 60

Lys Gly Arg Phe Ala Phe Ser Leu Glu Ser Ser Ala Ser Thr Ala Phe  
65 70 75 80

Leu Gln Ile Ser Asn Leu Lys Asn Glu Asp Met Gly Thr Tyr Phe Cys  
85 90 95

Ser Arg Ser Arg Gly Lys Asn Glu Ala Trp Phe Ala Tyr Trp Gly Gln  
100 105 110

Gly Thr Leu Val Thr Val Ser Ser  
115 120

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<210> 7
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chimeric cLL1Vk sequence

<220>
<221> CDS
<222> (1)..(339)

<400> 7
gac atc cag ctg acc caa act cca ctc tcc ctg cct gtc agt ctt gga
Asp .Ile Gln Leu Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
   1           5           10          15
```

gat caa gcc tcc atc tct tgc aga tct agt cag agc ctt gta cac aga	96
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Arg	
20	25
25	30
aat gga aac acc tat tta cat tgg tac ctg cag aag cca ggc cag tct	144
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser	
35	40
40	45
cca aag ctc ctg atc tac aca gtt tcc aac cga ttt tct ggg gtc cca	192
Pro Lys Leu Leu Ile Tyr Thr Val Ser Asn Arg Phe Ser Gly Val Pro	
50	55
55	60
gac agg ttc agt ggc agt gga tca ggg aca gat ttc aca ctc aag atc	240
Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile	
65	70
70	75
75	80
agt aga gtg gag gct gag gat ctg gga ctt tat ttc tgc tct caa agt	288
Ser Arg Val Glu Ala Glu Asp Leu Gly Leu Tyr Phe Cys Ser Gln Ser	
85	90
90	95
tca cat gtt cct ccc acg ttc ggt gct ggg acc aag ctg gag atc aaa	336
Ser His Val Pro Pro Thr Phe Gly Ala Gly Thr Lys Leu Glu Ile Lys	
100	105
105	110
cgt	339
Arg	

<210> 8  
<211> 113  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: chimeric cLL1V<sub>k</sub> sequence

<400> 8  
Asp Ile Gln Leu Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly  
1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Arg  
20 25 30  
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser  
35 40 45

Pro Lys Leu Ile Tyr Thr Val Ser Asn Arg Phe Ser Gly<sup>4</sup>Val Pro  
50 55 60

Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Leu Tyr Phe Cys Ser Gln Ser  
85 90 95

Ser His Val Pro Pro Thr Phe Gly Ala Gly Thr Lys Leu Glu Ile Lys  
 100 105 110

Arg

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<210> 9
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: humanized hLL1VH sequence

<220>
<221> CDS
<222> (1)...(360)

<400> 9
cag gtc caa ctg cag caa tct ggg tct gag ttg aag aag cct ggg gcc 48
Gln Val Gln Leu Gln Gln Ser Gly Ser Glu Leu Lys Lys Pro Gly Ala
  1           5          10          15

tca gtg aag gtt tcc tgc aag gct tct gga tac acc ttc act aac tat 96
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
  20          25          30

gga gtg aac tgg ata aag cag gcc cct gga caa ggg ctt cag tgg atg 144
Gly Val Asn Trp Ile Lys Gln Ala Pro Gly Gln Gly Leu Gln Trp Met
  35          40          45

ggc tgg ata aac ccc aac act gga gag cca aca ttt gat gat gac ttc 192
Gly Trp Ile Asn Pro Asn Thr Gly Glu Pro Thr Phe Asp Asp Asp Phe
  50          55          60

aag gga cga ttt gcc ttc tcc ttg gac acc tct gtc agc acg gca tat 240
Lys Gly Arg Phe Ala Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
  65          70          75          80

ctc cag atc agc agc cta aag gct gac gac act gcc gtg tat ttc tgt 288
Leu Gln Ile Ser Ser Leu Lys Ala Asp Asp Thr Ala Val Tyr Phe Cys
  85          90          95

tca aga tcg agg ggt aaa aac gaa gcc tgg ttt gct tat tgg ggc caa 336
Ser Arg Ser Arg Gly Lys Asn Glu Ala Trp Phe Ala Tyr Trp Gly Gln
  100         105         110

ggg acc ctg gtc acc gtc tcc tca 360
Gly Thr Leu Val Thr Val Ser Ser
  115         120
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<210> 10
<211> 120
<212> PRT
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: humanized hLL1VH sequence

<400> 10
Gln Val Gln Leu Gln Gln Ser Gly Ser Glu Leu Lys Lys Pro Gly Ala
      1           5           10          15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
      20          25          30

Gly Val Asn Trp Ile Lys Gln Ala Pro Gly Gln Gly Leu Gln Trp Met
      35          40          45

Gly Trp Ile Asn Pro Asn Thr Gly Glu Pro Thr Phe Asp Asp Asp Phe
      50          55          60

Lys Gly Arg Phe Ala Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
      65          70          75          80

Leu Gln Ile Ser Ser Leu Lys Ala Asp Asp Thr Ala Val Tyr Phe Cys
      85          90          95

Ser Arg Ser Arg Gly Lys Asn Glu Ala Trp Phe Ala Tyr Trp Gly Gln
      100         105         110

Gly Thr Leu Val Thr Val Ser Ser
      115         120

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<210> 11
<211> 339
<212> DNA
<213> Artificial Sequence
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<220>  
<223> Description of Artificial Sequence: humanized hLL1Vk sequence

<220>  
<221> CDS  
<222> (1) .. (339)

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<400> 11
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Asp Ile Gln Leu Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
   1           5           10          15

cag ccg gcc tcc atc tcc tgc aga tca agt cag agc ctt gta cac aga      96
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Arg
   20          25          30

aat gga aac acc tat tta cat tgg ttt cag cag agg cca ggc caa tct      144
Asn Gly Asn Thr Tyr Leu His Trp Phe Gln Gln Arg Pro Gly Gln Ser
   35          40          45

```

cca agg ctc ctg atc tac aca gtt tcc aac cga ttt tct ggg gtc cca	192
Pro Arg Leu Leu Ile Tyr Thr Val Ser Asn Arg Phe Ser Gly Val Pro	
50	55
55	60
gac aga ttc agc ggc agt ggg tca ggc act gat ttc aca ctg aaa atc	240
Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile	
65	70
70	75
75	80
agc agg gtg gag gct gag gat gtt ggg gtt tat ttc tgc tct caa agt	288
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Phe Cys Ser Gln Ser	
85	90
90	95
tca cat gtt cct ccc acg ttc ggt gct ggg aca cga ctg gag atc aaa	336
Ser His Val Pro Pro Thr Phe Gly Ala Gly Thr Arg Leu Glu Ile Lys	
100	105
105	110
cgt	339
Arg	

&lt;210&gt; 12

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: humanized hLL1V<sub>k</sub> sequence

&lt;400&gt; 12

Asp Ile Gln Leu Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly  
1 5 10 15Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Arg  
20 25 30Asn Gly Asn Thr Tyr Leu His Trp Phe Gln Gln Arg Pro Gly Gln Ser  
35 40 45Pro Arg Leu Leu Ile Tyr Thr Val Ser Asn Arg Phe Ser Gly Val Pro  
50 55 60Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile  
65 70 75 80Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Phe Cys Ser Gln Ser  
85 90 95Ser His Val Pro Pro Thr Phe Gly Ala Gly Thr Arg Leu Glu Ile Lys  
100 105 110

Arg

&lt;210&gt; 13

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 13

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ser	Glu	Leu	Lys	Lys	Pro	Gly	Ala
1															15

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
															30
			20						25						

Ala	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met
															45
								35	40						

Gly	Trp	Ile	Asn	Thr	Asn	Thr	Gly	Asn	Pro	Thr	Tyr	Ala	Gln	Gly	Phe
															60
			50				55								

Thr	Gly	Arg	Phe	Val	Phe	Ser	Leu	Asp	Thr	Ser	Val	Ser	Thr	Ala	Tyr
															80
			65				70			75					

Leu	Gln	Ile	Ser	Ser	Leu	Lys	Ala	Asp	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
															95
								85	90						

Ala	Arg	Glu	Asp	Ser	Asn	Gly	Tyr	Lys	Ile	Phe	Asp	Tyr			
									100						
									105						

&lt;210&gt; 14

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 14

Trp	Gly	Gln	Gly	Ser	Leu	Val	Thr	Val	Ser	Ser					
1					5				10						

&lt;210&gt; 15

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 15

Asp	Val	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Leu	Gly
1															15
								5			10				

Gln	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Val	His	Ser
															30
								20	25						

Asp	Gly	Asn	Thr	Tyr	Leu	Asn	Trp	Phe	Gln	Gln	Arg	Pro	Gly	Gln	Ser
															45
								35	40						

Pro	Arg	Arg	Leu	Ile	Tyr	Lys	Val	Ser	Asn	Arg	Asp	Ser	Gly	Val	Pro
															60
								50	55						

Asp	Arg	Phe	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile		
															80
								65	70		75				

Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Gly
															95
								85	90		90				

Thr His Trp Pro Phe Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile  
100 105 110

<210> 16  
<211> 16  
<212> PRT  
<213> Mus musculus

<400> 16  
Arg Ser Ser Gln Ser Leu Val His Arg Asn Gly Asn Thr Tyr Leu His  
1 5 10 15

<210> 17  
<211> 7  
<212> PRT  
<213> Mus musculus

<400> 17  
Thr Val Ser Asn Arg Phe Ser  
1 5

<210> 18  
<211> 9  
<212> PRT  
<213> Mus musculus

<400> 18  
Ser Gln Ser Ser His Val Pro Pro Thr  
1 5

<210> 19  
<211> 5  
<212> PRT  
<213> Mus musculus

<400> 19  
Asn Tyr Gly Val Asn  
1 5

<210> 20  
<211> 17  
<212> PRT  
<213> Mus musculus

<400> 20  
Trp Ile Asn Pro Asn Thr Gly Glu Pro Thr Phe Asp Asp Asp Phe Lys  
1 5 10 15

Gly

<210> 21  
<211> 11  
<212> PRT  
<213> *Mus musculus*

<400> 21  
Ser Arg Gly Lys Asn Glu Ala Trp Phe Ala Tyr  
1 5 10